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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,469	03/05/2004	Neil Thorburn	4019	2468
31424	7590	10/05/2004	EXAMINER	
BABCOCK IP LLC 24154 LAKESIDE DRIVE LAKE ZURICH, IL 60047			NGUYEN, PHUONGCHI T	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Qm

Office Action Summary	Application No. 10/708,469	Applicant(s) THORBURN, NEIL	
	Examiner Phuongchi Nguyen	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-19 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 5,6,10 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

☒ Attachment 1

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Mulvihill (US5713748).

In regarding to claim 1, Mulvihill discloses (Attachment 1) a grounding assembly for the outer conductor of a plurality of electrical cables, comprising a ground strap (36) with a plurality of cable receiving portions (A) (figure 5) formed in a first side (top side S1); each of the cable receiving portions (A) to mate with a first section (B) of an outer diameter of the outer conductor of each of the electrical cables (24), a retaining insulator (34) to mate with the first side (S1) of the ground strap (36); the retaining insulator (34) having a plurality of cable retaining portions (40) (figure 5) to mate with a second section (C) of the outer diameter of the outer conductor of electrical cables (24) in the cable receiving portions (A), and a support insulator (32) to mate with a second side (bottom side S2) of the ground strap (36).

In regarding to claim 2, Mulvihill discloses (Attachment 1) the assembly wherein the ground strap (36) is formed from a single piece of material.

In regarding to claim 3, Mulvihill discloses (Attachment 1) the assembly wherein the ground strap (36) has a cross sectional area of 12 millimeter-squared (the thickness of the ground strap 36 is equal to (figure 4) the diameter D^1 of cable receiving hole subtracts to the diameter D^2 of the inner side (or top side S1) of the ground strap 36, (column 6, lines 3-11) that is:

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$$D^1 = R^1 = 0.25 \text{ in}; D^2 = R^2 = 0.241 \text{ in}$$

Cross sectional Area A equal to:

$$\begin{aligned} A &= \pi (R^1)^2 - \pi (R^2)^2 \\ &= \pi ((R^1)^2 - (R^2)^2) \\ &= \pi ((0.250)^2 - (0.241)^2) \\ &= \pi (0.004419) \\ &= 0.0188 \text{ in}^2 \\ &= 0.0188 \text{ in}^2 ((25.4 \text{ mm})^2 / (1 \text{ in}^2)) = 12 \text{ mm}^2 \end{aligned}$$

It would have been obvious to one having ordinary skill at the time the invention was made to modify the cross sectional area of Mulvihill by provide a larger diameter such as 16 millimeter-squared for increasing the conductivity in the ground strap.

In regarding to claim 4, Mulvihill discloses (Attachment 1) the assembly wherein each cable receiving portion (A) has at least one lip edge (73) (figure 5) protruding radially inward whereby the outer conductor (of the cable 24) is retained within the cable retaining portion (40) upon insertion.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mulvihill (US5713748) in view of Waddell et al (US5834693).

In regarding to claim 7, Mulvihill discloses the invention, but lacks an aperture and a flange. However, Waddell et al teaches (figures 1 and 4) the assembly further including a base plate (20) with an aperture (24); a flange (on rails 26 and 28, engaging to surfaces 49 and 47)

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projecting from an edge of the aperture (24) to support the supporter (43); and a fastening plate (47) to support the retainer (42); the fastening plate (47) to cover the aperture (on the rail 28; where fastener 47B going through on the retainer 42) when seated upon the ground strap or retainer (42). It would have been obvious to one having ordinary skill at the time the invention was made to modify the ground strap system of Mulvihill by providing an aperture, a flange combining with the arrangement of the supporter and the retainer together with a fastening plate as taught by Waddell et al for ease to disconnect or connect the ground strap or the cables from the assembly.

In regarding to claim 8, Mulvihill discloses the invention, but lacks the compression holes extending through the flange, the supporter, the retainer, the fastening plate and the ground strap. However, Waddell et al teaches a plurality of compression holes (47A, hole of supporter 43, hole of retainer 42) extending through the flange (on rail 28, engaging to surface 47), the supporter (43), the retainer (42) and the fastening plate (47). It would have been obvious to one having ordinary skill at the time the invention was made to fasten all of the holes of the members together of Mulvihill and extend the lip edge of the ground strap for fastening the ground strap together with any other members to increase the connection of the ground strap in the system.

In regarding to claim 9, Mulvihill discloses the invention, but lacks a compression hole of the support insulator protrudes through each ground strap compression hole. It would have been obvious to one having ordinary skill at the time the invention was made to modify the compression holes of the support insulator of Mulvihill by providing a compression hole of the support insulator protrudes through each ground strap compression hole; since the examiner takes official Notice of the equivalence of the protrusion of the holes of the support insulator

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through each ground strap compression hole and the selection of any of these known equivalents to fasteners would be within the level of ordinary skill in the art.

Allowable Subject Matter

5. Claims 12-19 are allowed.

6. Claims 5, 6, 10, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

In regarding to claim 5, none of prior art teaches or suggests the ground strap assembly having the support insulator and the retaining insulator encapsulate the ground strap, except for a protruding ground strap connection point.

In regarding to claims 6, 10 and 12, none of prior art teaches or suggests the ground strap assembly having a shoulder portion of the retaining insulator to seal against the support insulator when the support insulator is seated against the ground strap.

In regarding to claim 11, none of prior art teaches or suggests the ground strap assembly has the retaining insulator to extend to cover the extent of the fastening plate, which faces the base plate.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi Nguyen whose telephone number is (571) 272-2012.

The examiner can normally be reached on 8:00AM-4:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PCN

September 27, 2004



ROSS GUSHI
PRIMARY EXAMINER

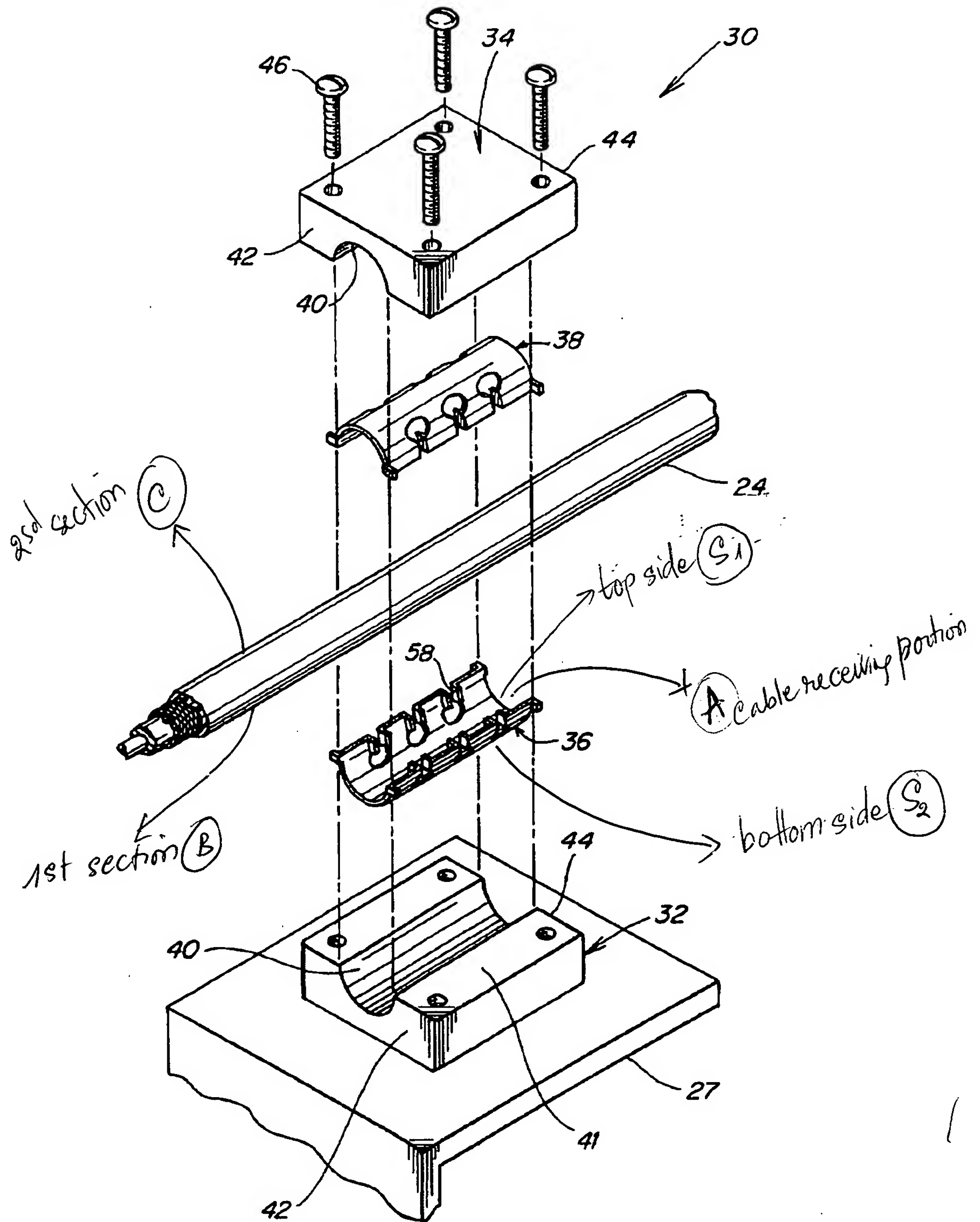


FIG. 3